

Veronicella mexicana betheli v. nov.

Above, warm red-brown, paler toward the sides, with scattered pale dots; dorsal and subdorsal regions irregularly and not densely speckled with blackish; on the anterior third this speckling is resolved into a pair of obscure bands, a little nearer to each other than either to the lateral margin. Beneath pale reddish, darker posteriorly, and speckled with pale. Sole pale ochreous. Tentacles dark grey. There is not the slightest indication of a pale dorsal line. Under a lens, it is seen that the body above and below (especially posteriorly below) is very closely beset with minute pale dots, which correspond with punctiform depressions, while over this pattern are set numerous much larger diffused pale spots. All this is hardly to be noticed without magnification. Length (at rest) about 50 mm., breadth in middle about 23; breadth of sole 9 mm.; of body on each side of it 7 mm., sole not projecting beyond body.

The above was from the living slug. In alcohol it appears as follows: Length 34, breadth 18 mm.; width of sole 7 mm.; female orifice 19 mm. from anterior end, 16 from posterior, only one mm. from sole; sole with about 7 cross-striae in one mm.; end of sole broadly rounded, about 2 mm. from hind end. Jaw strongly arched, with about 25 strong ribs; teeth about 54-1-54, ordinary, middle tooth reduced, shaped like a spear-head, marginals quadrate; salivary glands normal, pale yellow; oesophagus longitudinally corrugated; stomach with a portion having a diameter of about 2 mm. not covered by liver; albumen glands large, bright orange-yellow; receptaculum seminis oval, yellowish-plumbeous, about 1.25 mm. long; accessory glands about 38, of which about 24 are 11 mm. long, the others variously shorter, several only half as long.

A PHILOMYCUS FROM THE REPUBLIC OF PANAMA.

BY T. D. A. COCKERELL.

During a recent visit to Central America, Mr. E. Bethel found three specimens of a *Philomycus* at Bocas del Toro, Republic of Panama. The genus is new to Panama. Two specimens are evidently adult (one opened showed fully-developed genitalia), the other is immature. The slug may be described as follows:

Philomyces costaricensis (Mörch), variety *a*.

Length (in alcohol) about 11.5 mm., width of sole 1.5 mm.; very pale ochreous, the mantle with rather sparse grey floccose markings, and a pair of (subdorsal) grey bands, irregular in outline and more or less interrupted, consisting in fact of crowded grey spots. Respiratory orifice about 2 mm. from anterior end of mantle. Sole with a distinct median groove, evanescent anteriorly. Penis-sac cylindrical, the apical end curved over and turned downwards, so that the whole structure looks like a compressed interrogation mark. Jaw broad, strongly arcuate, about 1170 μ across, and 320 deep in middle, the outer thirds wholly without ribs or evident striae, the inner third with six broad ribs, distinct above, but failing below. (The young specimen shows better developed ribs, five in number.) Teeth about 21-13-1-13-21, the central ones strongly tricuspid, the lateral cusps small. The teeth agree in general character with those of *P. dorsalis*, as figured by Binney, differing however in the relatively longer basal plates, the short and broad central teeth not much more than half as long as the plate, certainly not over three-fifths as long. The interesting thing about this species is that it belongs strictly to the group of *P. hemphilli* and *P. secretus*, found in North Carolina. It is apparently *P. costaricensis* (Mörch), at least as described by W. G. Binney (Ann. N. Y. Ac. Sci., May, 1884) from material collected in Costa Rica by Gabb. Our slug differs from Binney's account in the greater number of teeth (Binney says about 28-1-28), and perhaps in the very definite ribbing of the jaw. I call it variety *a*, so that it can be referred to separately, but it does not seem wise to give it a name. *P. auratus* (Tate), from Nicaragua, may perhaps be a form of the same species. On the other hand the Mexican *P. sallei* (Cr. & Fisch.) and *P. crosseana* (Strebel) appear to belong to the group of typical *Philomyces*.

On his way home, Mr. Bethel collected a couple of *Philomyces* at New Orleans. These are *P. caroliniensis* (Bosc.) of the form which I separated (Ann. Mag. Nat. Hist., Nov., 1890, p. 382) as *nebulosus*. This is the common, widely distributed animal, from Canada southward; current opinion does not support my attempt to separate the true *P. caroliniensis* from Virginia, but I am not yet altogether satisfied that careful study will not confirm the supposed distinctions.